

Notice of Allowability

Application No.

10/597,320

Examiner

Guy J. Lamarre

Applicant(s)

BERGMANS ET AL.

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Submittal of 07/20/2006.
2. ☒ The allowed claim(s) is/are 1-3, 5-7, 9-10, 12-16, 18-19, 21-22 and 24-26.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>8/26/10</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

/Guy J Lamarre/
Primary Examiner, Art Unit 2112

Examiner's Amendment & Reasons for Allowance

Examiner's Amendment

* An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The following has been amended:

1. **Claims 4, 8, 11, 17, 20, 23** are cancelled.
2. The final version of **Claims 1-3, 5-7, 9-10, 12-16, 18-19, 21-22 and 24-26** is as follows:

1. A feedback control loop for controlling parameters of a signal comprised in a block of data stored in a N-dimensional data block on a record carrier, the feedback loop comprising

an input for receiving an information from the record carrier and error signal derivation means for deriving an error signal from the information,

wherein said feedback loop is arranged to determine an error signal from a first area of the N-dimensional data block, the first area being that area where the error signal can be determined within the shortest period of time;

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the feedback control loop further arranged for controlling parameters of a signal from a second area based on the error signal derived from the first area and on a further error signal derived from a third area;

wherein the parameters of the signal from the second area are controlled using an interpolated error signal derived by interpolating between the error signal and the further error signal based on a position of the second area relative to the first area and the third area.

2. A feedback control loop as claimed in claim 1, characterized in that the control loop is a high bandwidth control loop.

3. A feedback control loop as claimed in claim 1, characterized in that the first area is a guard band area corresponding to the N-dimensional data block.

4. (cancelled)

5. A feedback control loop as claimed in claim 1, characterized that a the feedback control loop is additionally arranged for controlling parameters of a signal from the second area based on an error signal derived from the second area.

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6. A feedback control loop as claimed in claim 1, characterized in that the second area is the N-dimensional data block.

7. A feedback control loop as claimed in claim 6, characterized in that the parameters of the signal from the second area are uniformly controlled using the error signal.

8. (cancelled)

9. A feedback control loop as claimed in claim 1, characterized in that the second area is the N-dimensional data block.

10. A feedback control loop as claimed in claim 1, characterized in that the parameters of the signal from the second area are uniformly controlled using an average of the error signal and the further error signal.

11. (cancelled)

12. A feedback control loop as claimed in claim 1, characterized in that the feedback control loop comprises a detector with an input for receiving the information from the input and an output for providing the error signal to the

feedback control loop.

13. A feedback control loop as claimed in claim 12, characterized in that the feedback control loop is a decision directed feedback control loop.

14. A feedback control loop as claimed in claim 12, characterized in that a further control loop, supplementing the control loop, is arranged to determine an error signal from a fourth area of the N-dimensional data block where the fourth area is different from the first area.

15. A method for controlling parameters in a feedback control loop of a signal comprised in a block of data stored in a N-dimensional data block on a record carrier comprising the steps of

receiving an information from the record carrier;

deriving an error signal from the information;

determining an error signal from a first area of the N-dimensional data block where the first area is that area where the error signal can be determined within the shortest period of time;

controlling parameters based on the determined error signal, wherein the step of controlling parameters comprises controlling parameters of a signal from a second area based on the error signal derived from the first area and of a signal from a second area based on the error signal derived from the first area and a further error signal derived from a third area,

wherein the step of controlling the parameters of the signal from the second area comprises the steps of: interpolating between the error signal and the further error signal based on a position of the second area relative to the first area and the third area to derive an interpolated error signal.

16. A method for controlling parameters in a feedback control loop as claimed in claim 15, characterized in that the step of deriving an error signal from the information comprises the step of selecting the information from a guard band area corresponding to the N-dimensional data block

17. (cancelled)

18. A method for controlling parameters in a feedback control loop as claimed in claim 15, characterized in that the second area is the N-dimensional data block.

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19. A method for controlling parameters in a feedback control loop as claimed in claim 18, characterized in that the parameters of the signal from the second area are uniformly controlled using the error signal.

20. (cancelled)

21. A method for controlling parameters in a feedback control loop as claimed in claim 15, characterized in that the second area is the N-dimensional data block.

22. A method for controlling parameters in a feedback control loop as claimed in claim 15, characterized in that the parameters of the signal from the second area are uniformly controlled using an average of the error signal and the further error signal.

23. (cancelled)

24. A method for controlling parameters in a feedback control loop as claimed in claim 1, characterized in that the step of deriving an error signal from the information comprises the step of detecting symbols from the information and providing the error signal to the feedback control loop.

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25. A method for controlling parameters in a feedback control loop as claimed in claim 15, characterized in that the feedback control loop is a decision directed feedback control loop.

26. Apparatus for reading an optical record carrier comprising a feedback control loop as claimed in claim 1. ----

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Reasons for Allowance

* **Claims 1-3, 5-7, 9-10, 12-16, 18-19, 21-22 and 24-26** thus remain pending.

.1 Claims 1-3, 5-7, 9-10, 12-16, 18-19, 21-22 and 24-26 are allowed because the prior art made of record does not disclose the specific feedback control loop parameter controlling operations recited in instant claims.

.2 Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

* Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (571) 272-3826. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman, can be reached at (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Guy J Lamarre/

Primary Examiner, Art Unit 2112
